

REMARKS

The present application was filed on September 12, 2003 with claims 1 through 6  
Claims 1 through 6 are presently pending in the above-identified patent application. Claims 1-6  
are proposed to be amended herein. Applicants note that the Examiner has incorrectly indicated  
5 that claims 1-5 are pending and rejected in the Office Action Summary

In the Office Action, the Examiner rejected claims 5 and 6 under 35 U S C. §112,  
second paragraph, as being indefinite for failing to particularly point out and distinctly claim the  
subject matter which applicant regards as the invention. The Examiner also rejected claims 1-6  
under 35 U.S.C. §103(a) as being unpatentable over McGibney (United States Patent Number  
10 5,889,759), in view of Sato et al. (United States Patent Number 5,596,582 B1), and further in  
view of Wang et al. (United States Patent Number 6,693,958 B1)

Section 112 Rejections

Claims 5 and 6 were rejected under 35 U S C. §112, second paragraph, as being  
indefinite for failing to particularly point out and distinctly claim the subject matter which  
15 applicant regards as the invention. In particular, the Examiner asserts that the preambles of the  
claims indicate that these are method type claims, but the bodies of the claims declare that these  
are apparatus type claims.

Claims 5 and 6 have been amended to be apparatus type claims. Applicants  
believe that these amendments address the Examiner's concerns and respectfully request that the  
20 section 112 rejections be withdrawn

Independent Claims 1, 3, 5 and 6

Independent claims 1, 3, 5, and 6 were rejected under 35 U.S.C. §103(a) as being  
unpatentable over McGibney, in view of Sato et al., and further in view of Wang et al.  
Regarding claims 1 and 5, the Examiner acknowledges that McGibney and Sato did not  
25 expressly disclose the limitation of continuously monitoring each received frame for the  
synchronizing pattern at periodic frame intervals, but asserts that Wang teaches a similar  
synchronization process for the forward error correction decoding wherein it is a common

practice of synchronization process to continuously (repeatedly) monitor (in an acquisition state) each received frame for the synchronizing pattern (fixed known sync pattern) at periodic frame intervals (col 8, lines 18-67).

Applicants note that the independent claims of the present invention have been amended to require monitoring each received frame for a *predefined interleaver synchronizing pattern*; and continuously monitoring each received frame for said *predefined interleaver synchronizing pattern* at periodic frame intervals. Applicants also note that none of the cited references are directed to *interleaver synchronization*, and that none of the cited references disclose or suggest monitoring each received frame for a *predefined interleaver synchronizing pattern*; or continuously monitoring each received frame for the *predefined interleaver synchronizing pattern* at periodic frame intervals. For example, McGibney is directed to a “*timing and frequency synchronization method*.” (See, Field of the Invention ) Similarly, Sato teaches that

15 a plurality of the data symbols are grouped into each of successive frames of a common frame period  $F$  by adding a few *frame synchronizing symbols*  $S_{sym}$  to each frame. As indicated by a label  $D_{sym}$ , data symbols of a predetermined integer are included in each frame following the frame synchronizing symbols. If necessary, each frame additionally includes at least one service identification symbol  
20 (Col. 6, lines 1-8; emphasis added.)

Neither McGibney nor Sato, however, disclose or suggest an *interleaver synchronizing pattern*. Finally, in the text cited by the Examiner, Wang discloses “field sync” segments and intervals. Wang, also, does not disclose or suggest an *interleaver synchronizing pattern*.

25 Thus, McGibney, Sato et al., and Wang et al., alone or in combination, do not disclose or suggest monitoring each received frame for a predefined interleaver synchronizing pattern; and continuously monitoring each received frame for said predefined interleaver synchronizing pattern at periodic frame intervals, as required by independent claims 1, 3, 5, and 6, as amended.

Dependent Claims 2 and 4

Dependent claims 2 and 4 were rejected under 35 U.S.C. §103(a) as being unpatentable over McGibney, in view of Sato et al., and further in view of Wang et al.

Claims 2 and 4 are dependent on claims 1 and 3, respectively, and are therefore  
5 patentably distinguished over McGibney, Sato et al., and Wang et al., alone or in combination, because of their dependency from amended independent claims 1 and 3 for the reasons set forth above, as well as other elements these claims add in combination to their base claim.

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Examiner is invited to contact the undersigned at  
10 the telephone number indicated below.

The Examiner's attention to this matter is appreciated.

Respectfully submitted,

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